

Appl. No. 10/537,957

Amendment to office action dated July 23, 2007

REMARKS

Applicant respectfully disagrees with the Examiner that the claims are unpatentable over Iato (US 5,873,410) in view of Ramos (USP 6,719,048) and Simons (USP 6,196,313).

Claim Rejections – 35 USC 103(a)

The present application is concerned with a method of producing oil in a particular type of well having a *'vertical section'* and a *'sidetrack extending from the vertical section into the oil-producing formation'*. It uses a two-valve system to achieve this in which a first valve is located *'at a level within the oil-producing formation'* and a second valve is located *'at a level below the oil-producing formation'*. This two-valve arrangement has the advantage of being simple for re-injecting the separated water below the producing interval without requiring the use of expensive and complex pumping arrangements (see paragraph [0031]).

Iato is not concerned with a sidetrack arrangement, let alone a two-valve arrangement for a vertical and sidetrack configuration. Instead Iato has a single valve 24 with a completely different location and function to the claimed two-valve arrangement. Valve 24 is located above the level of the oil-producing formation 14, not within the level as claimed, but also valve 24 functions to prevent flow to the reservoir, not to a sidetrack as claimed. Both the location and function of the valve is different.

Examiner turns to Ramos as disclosing a sidetrack, but there is no description of a valve-arrangement in Ramos. Thus, the skilled person would have no motivation to combine these documents, and even if the skilled person were to do so, he would still not arrive at the two-valved vertical and sidetrack configuration of the invention.

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Examiner turns to Simons which teaches a valve 9 below the formation, but this is also not equivalent to the second valve whose claimed function is to *"prevent flow of fluid from the portion of the vertical section below the oil-production formation into the sidetrack"*. Indeed, it is impossible for Simons' valve to disclose such claimed functionality, since as with Iano, these references are not concerned with a sidetrack configuration or, more importantly, of using valves to prevent fluid flow into such a sidetrack.

As a more general point, both Iano and Simons refer to a one-way (or non-return) valve, but this is wholly different to the claimed two-valve configuration reliant on gravity, valve placement and well configuration to effect the control of fluids between a vertical and sidetrack well, and results in the aforementioned advantages of simplistic operation.

1. No Suggestion to Combine Iano, Ramos and Simons.

There is no suggestion in Iano that it should be combined with Ramos. Although Iano mentions the possibility of multiples wells at col. 5 lines 6-10, there is no suggestion of a vertical and sidetrack configuration, and more importantly, how a 2-valved system (location and functionality) might be adapted for such a vertical and sidetrack configuration.

There is also no suggestion that Simons should be combined with Ramos, since Simons is concerned with a vertical well. Hence Simons' valve also has a different purpose, which is for permitting only the egress of water in the vertical well. There is no disclosure of a sidetrack arrangement.

None of Iano, Ramos or Simons, singularly or in combination, provide some teaching, suggestion, or motivation that would have led one of ordinary skill to modify either reference or combine the references to arrive at the simplicity of the claimed two-valve arrangement.

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Applicant suggests the examiner is applying improper hindsight in combining these disparate references and in suggesting that the adaption of these, to arrive at the claimed invention, would be obvious.

2. Combination of Ramos is incompatible with Iato or Simons would change principle operation of either.

Combining Ramos with Simons or Iato does not seem to result in anything operable, or even discernible. A proposed modification cannot change the principle operation of a reference or render a prior art unsatisfactory for its intended purpose (See MPEP 2143.02). Ramos is based on a principle of operation using detectors and pumps for controlling the flow of fluid to different well paths (see lines 6-8 of Abstract), which is a wholly different operating principle to Simons that controls fluid flows in a vertical well using multiple inlets and outlets, and also Iato which controls fluid flow using a single valve. Thus, presumable the skilled person would need to modify or replace the sensor/pump principle of Ramos with some sort of valve arrangement as taught by Iato or Simons. Such a modification is therefore incompatible.

3. Combination of Iato, Ramos and Simons does not result in the claimed invention.

Even if the teachings of Iato, Ramos and Simons could be combined in some reasonable manner, such combination would not result in the invention claimed. Claim 1 contains the following features that are not anticipated by any combination of Iato, Ramos and Simons:

"a first valve located at a level within the oil-producing region, and operable to prevent flow of fluid from the vertical section into the sidetrack ... and a second valve ... located ... at a level

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below the oil-producing region for ...to prevent flow of fluid from the portion of the vertical section below the oil-production formation into the sidetrack..."

It is respectfully suggested that the Examiner has adopted an incorrect approach in identifying each feature separately and hence the invention is obvious, rather than assessing the claimed arrangement as a whole. Even if claim 1 was incorrectly assessed as a juxtaposition of unrelated features, the combination still does not teach these differentiating features for the reasons already provided. However, it is respectfully submitted that it is the combination of the features, i.e. the location and function of the first and second valves in relation to a vertical and sidetrack well configuration, which makes the invention patentable over the combined prior art.

CONCLUSION

This paper is submitted in response to the Office Action mailed August 27, 2008 for which the three-month date for response was November 27, 2008. We file herewith a petition for revival of the present application.

Please apply any charges not covered, or any credits, to Deposit Account 50-2183 (Reference Number 21.1053).

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Respectfully submitted,

By Jonna Flores

Jonna Flores

Registration No.: 56,803

Schlumberger Technology Corp.

200 Gillingham Lane

Sugar Land, TX 77478

281-285-3658 (tel)

281-285-8821 (fax)